



**UMS**  
UNIVERSITI MALAYSIA SABAH



**Faculty of  
Computing  
& Informatics**

# Doctor of Philosophy (Computer Science)

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## ADMISSION REQUIREMENTS

1. Possess a Master's degree in Computing or its equivalent from any university approved by the Senate; **OR**
2. Possess a Master's degree or its equivalent in any field other than Computing may be accepted, provided that the applicant has a Bachelor's degree in Computing; **OR**
3. Candidates who are registered as Master candidates at the Universiti Malaysia Sabah and have obtained approval to upgrade by the Faculty's Postgraduate Committee and approved by the Senate; **AND**
4. Fulfill other requirements set by the Senate: Degrees awarded by local/private institutions of higher learning, including those awarded under any collaborative/franchising schemes with local or foreign partners, must be accredited by the Malaysian Qualifications Agency (MQA).

### English Language Proficiency Requirements

1. International applicants or non-English speaking countries applicants must have at least IELTS Band 6.0 or TOEFL score of 60 (Internet-based) / 500 (paper-based) or MUET Band 4.0; **OR**
2. Fulfill the general language requirement outlined by the university.

### Requirements Before Submitting

#### Notice of Thesis Submission

No	Requirements
1	Fulfil the minimum candidature durations of 4 semesters (Full Time) and 6 semesters (Part Time)
2	Fulfil the English Language Proficiency Requirement*
3	Pass the Research Methodology Course
4	Pass the Proposal Defence
5	Present Progress Reports as required by the faculty
6	Pass the Pre Viva

#### Criteria on Conferment of Degree

1. Produce at least two (2) article published / accepted in Scopus / WoS indexed journals before submitting the final thesis.
2. Present research work at least once at any conference and publish in Scopus indexed proceedings.

## DURATION OF STUDY

**Full Time 4 – 8 semesters | Part Time 6 – 12 semesters**

## PROGRAMME STRUCTURE

Study areas under the Doctor of Philosophy in Computer Science programme are:

1. Nature-inspired Computational Intelligence
2. Evolutionary Robotics, Behaviour-Based Robotics
3. Artificial Neural Networks
4. Evolving Game AI
5. Multi-Objective Optimization and Metaheuristics
6. Agent Technology
7. Semantic Technology
8. Natural Language Processing
9. Image Processing
10. Sentiment Analysis
11. Augmented Reality
12. Neuroinformatics

FEES	LOCAL (MYR)		INTERNATIONAL (MYR)
	FULL TIME	PART TIME	FULL TIME
Registration	580.00	580.00	2,930.40
Semester 1	2,143.00	2,033.00	4,620.00
Semester 2	2,118.00	2,008.00	4,620.00
Semester 3	2,143.00	2,033.00	4,620.00
Semester 4	2,118.00	2,008.00	4,620.00
Semester 5	2,143.00	2,033.00	4,620.00
Semester 6	2,118.00	2,008.00	4,620.00
Viva Voce	1,500.00	1,500.00	1,500.00

## Graduate On Time Schedule

Semester	Activities	Milestone	Assessments
1	<ul style="list-style-type: none"> <li>Attend Research Methodology Course</li> <li>Write research proposal</li> <li>Learn to use reference manager software (Mendeley) and document preparation system (LaTeX)</li> </ul>	<ul style="list-style-type: none"> <li>Pass Research Methodology Course</li> <li>Pass Proposal Defence</li> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Research Methodology Course</li> <li>Proposal Defence</li> <li>Progress Report</li> </ul>
2	<ul style="list-style-type: none"> <li>Write thesis chapter 1 (Introduction)</li> <li>Attend Research Literacy Course</li> </ul>	<ul style="list-style-type: none"> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Progress Presentation</li> <li>Progress Report</li> </ul>
3	<ul style="list-style-type: none"> <li>Write thesis chapter 2 (Literature Review)</li> <li>Attend Research Literacy Course</li> <li>Write review/survey paper</li> </ul>	<ul style="list-style-type: none"> <li>Submit review/survey paper to a Scopus/WoS indexed journal</li> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Progress Presentation</li> <li>Progress Report</li> </ul>
4	<ul style="list-style-type: none"> <li>Write thesis chapter 3 (Methodology)</li> <li>Attend Research Literacy Course</li> </ul>	<ul style="list-style-type: none"> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Progress Presentation</li> <li>Progress Report</li> </ul>
5	<ul style="list-style-type: none"> <li>Conduct experiment or field work</li> <li>Write thesis chapter 4 (Results and Findings)</li> <li>Attend Research Literacy Course</li> <li>Write journal article</li> </ul>	<ul style="list-style-type: none"> <li>Present research work at a conference</li> <li>Submit article to a Scopus/WoS indexed journal</li> <li>Pass Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Progress Presentation</li> <li>Progress Report</li> </ul>
6	<ul style="list-style-type: none"> <li>Write thesis chapter 5 (Conclusion)</li> <li>Write journal article (optional)</li> <li>Prepare a complete thesis</li> </ul>	<ul style="list-style-type: none"> <li>Submit article to a Scopus/WoS indexed journal (optional)</li> <li>Submit Thesis</li> </ul>	<ul style="list-style-type: none"> <li>Pre-Viva</li> <li>Viva</li> <li>Thesis</li> </ul>

\*Applicable to all International Candidates